


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<p>In re Application of</p> <p>Avi J. Ashkenazi et al.</p> <p>Serial No.: 09/887,879</p> <p>Filed: June 21, 2001</p> <p>For: Apo-2DcR</p> <p>Confirmation No. 9003</p> 	<p>Group Art Unit: To Be Assigned</p> <p>Examiner: To Be Assigned</p> <hr/> <p>CERTIFICATE OF EXPRESS MAILING</p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service via Express Mail, No., EL599583802US, in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on</p> <p>September 20, 2001</p> <p><i>Diane L. Marschang</i></p> <p>Diane L. Marschang</p>
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Letter and REQUEST TO USE COMPUTER-READABLE SEQUENCE LISTING

UNDER 37 CFR §1.821(e)

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Applicants respectfully request that the compliant computer-readable Sequence Listing filed in application Serial No. 09/096,500 be used as the computer-readable Sequence Listing for the present, above-identified application.

The paper copy of the substitute Sequence Listing being filed herewith is identical to the computer-readable copy of the Sequence Listing filed in the application Serial No. 09/096,500.

Respectfully submitted,

GENENTECH, INC.

Date: September 20, 2001

By: *Diane L. Marschang*
Diane L. Marschang
Reg. No. 35,600
Telephone No. (650) 225-5416



09157

PATENT TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<p>In re Application of</p> <p>Avi J. Ashkenazi et al.</p> <p>Serial No.: 09/887,879</p> <p>Filed: June 21, 2001</p> <p>For: Apo-2DcR</p> <p>Confirmation No. 9003</p>	<p>Group Art Unit: To Be Assigned</p> <p>Examiner: To Be Assigned</p> <p>CERTIFICATE OF EXPRESS MAILING hereby certify that this correspondence is being deposited with the United States Postal Service via Express Mail, No. EL599583802US, in an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on</p> <p>September 20, 2001</p> <p><i>Diane L. Marschang</i> Diane L. Marschang</p>
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CERTIFICATE RE: SEQUENCE LISTING

Assistant Commissioner of Patents
 Washington, D.C. 20231

Sir:

I hereby state that the substitute Sequence Listing submitted herewith is submitted in paper copy and a computer-readable diskette, and that the information recorded in computer readable form is identical to the written sequence listing. I further state that this submission includes no new matter.

Respectfully submitted,

GENENTECH, INC.

Date: September 20, 2001

By: *Diane L. Marschang*
 Diane L. Marschang
 Reg. No. 35,600
 Telephone No. (650) 225-5416



09157

PATENT TRADEMARK OFFICE

Sequence Listing



<110> Ashkenazi, Avi J.
Baker, Kevin P.
Chuntharapai, Anan
Gurney, Austin
Kim, Kyung Jin
Wood, William I.

<120> Apo-2DcR

<130> P1110P1C1

<140> US 09/887,879

<141> 2001-06-21

<150> US 09/096,500

<151> 1998-06-12

<150> US 60/049,911

<151> 1997-06-18

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<211> 259

<212> PRT

<213> Homo sapiens

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Ala	Val	Leu	Leu	Pro	Val	Leu	Ala	Tyr	Ser	Ala	Thr	Thr	Ala	Arg
				20					25					30

Gln	Glu	Glu	Val	Pro	Gln	Gln	Thr	Val	Ala	Pro	Gln	Gln	Gln	Arg
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His	Ser	Phe	Lys	Gly	Glu	Glu	Cys	Pro	Ala	Gly	Ser	His	Arg	Ser
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Glu	His	Thr	Gly	Ala	Cys	Asn	Pro	Cys	Thr	Glu	Gly	Val	Asp	Tyr
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Thr	Asn	Ala	Ser	Asn	Asn	Glu	Pro	Ser	Cys	Phe	Pro	Cys	Thr	Val
				80					85					90

Cys	Lys	Ser	Asp	Gln	Lys	His	Lys	Ser	Ser	Cys	Thr	Met	Thr	Arg
				95					100					105

Asp	Thr	Val	Cys	Gln	Cys	Lys	Glu	Gly	Thr	Phe	Arg	Asn	Glu	Asn
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Ser	Pro	Glu	Met	Cys	Arg	Lys	Cys	Ser	Arg	Cys	Pro	Ser	Gly	Glu
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Val	Gln	Val	Ser	Asn	Cys	Thr	Ser	Trp	Asp	Asp	Ile	Gln	Cys	Val
				140					145					150

Glu	Glu	Phe	Gly	Ala	Asn	Ala	Thr	Val	Glu	Thr	Pro	Ala	Ala	Glu
				155					160					165

Glu Thr Met Asn Thr Ser Pro Gly Thr	Pro Ala Pro Ala Ala Glu
170	175 180
Glu Thr Met Asn Thr Ser Pro Gly Thr	Pro Ala Pro Ala Ala Glu
185	190 195
Glu Thr Met Thr Thr Ser Pro Gly Thr	Pro Ala Pro Ala Ala Glu
200	205 210
Glu Thr Met Thr Thr Ser Pro Gly Thr	Pro Ala Pro Ala Ala Glu
215	220 225
Glu Thr Met Thr Thr Ser Pro Gly Thr	Pro Ala Ser Ser His Tyr
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Leu Ser Cys Thr Ile Val Gly Ile Ile	Val Leu Ile Val Leu Leu
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Ile Val Phe Val	

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 cgttagggaa ctctggggac agagcgcccc ggccgcctga tggccgaggc 150
 aggggtgcgac ccaggaccca ggacggcgtc gggaaccata cc atg 195
 Met
 1
 gcc cgg atc ccc aag acc cta aag ttc gtc gtc gtc atc 234
 Ala Arg Ile Pro Lys Thr Leu Lys Phe Val Val Val Ile
 5 10
 gtc gcg gtc ctg ctg cca gtc cta gct tac tct gcc acc 273
 Val Ala Val Leu Leu Pro Val Leu Ala Tyr Ser Ala Thr
 15 20 25
 act gcc cgg cag gag gaa gtt ccc cag cag aca gtg gcc 312
 Thr Ala Arg Gln Glu Glu Val Pro Gln Gln Thr Val Ala
 30 35 40
 cca cag caa cag agg cac agc ttc aag ggg gag gag tgt 351
 Pro Gln Gln Gln Arg His Ser Phe Lys Gly Glu Glu Cys
 45 50
 cca gca gga tct cat aga tca gaa cat act gga gcc tgt 390
 Pro Ala Gly Ser His Arg Ser Glu His Thr Gly Ala Cys
 55 60 65
 aac ccg tgc aca gag ggt gtg gat tac acc aac gct tcc 429

Asn	Pro	Cys	Thr	Glu	Gly	Val	Asp	Tyr	Thr	Asn	Ala	Ser		
			70					75						
aac	aat	gaa	cct	tct	tgc	ttc	cca	tgt	aca	gtt	tgt	aaa	468	
Asn	Asn	Glu	Pro	Ser	Cys	Phe	Pro	Cys	Thr	Val	Cys	Lys		
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tca	gat	caa	aaa	cat	aaa	agt	tcc	tgc	acc	atg	acc	aga	507	
Ser	Asp	Gln	Lys	His	Lys	Ser	Ser	Cys	Thr	Met	Thr	Arg		
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gac	aca	gtg	tgt	cag	tgt	aaa	gaa	ggc	acc	ttc	cgg	aat	546	
Asp	Thr	Val	Cys	Gln	Cys	Lys	Glu	Gly	Thr	Phe	Arg	Asn		
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gaa	aac	tcc	cca	gag	atg	tgc	cgg	aag	tgt	agc	agg	tgc	585	
Glu	Asn	Ser	Pro	Glu	Met	Cys	Arg	Lys	Cys	Ser	Arg	Cys		
120						125					130			
cct	agt	ggg	gaa	gtc	caa	gtc	agt	aat	tgt	acg	tcc	tgg	624	
Pro	Ser	Gly	Glu	Val	Gln	Val	Ser	Asn	Cys	Thr	Ser	Trp		
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gat	gat	atc	cag	tgt	gtt	gaa	gaa	ttt	ggg	gcc	aat	gcc	663	
Asp	Asp	Ile	Gln	Cys	Val	Glu	Glu	Phe	Gly	Ala	Asn	Ala		
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act	gtg	gaa	acc	cca	gct	gct	gaa	gag	aca	atg	aac	acc	702	
Thr	Val	Glu	Thr	Pro	Ala	Ala	Glu	Glu	Thr	Met	Asn	Thr		
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agc	ccg	ggg	act	cct	gcc	cca	gct	gct	gaa	gag	aca	atg	741	
Ser	Pro	Gly	Thr	Pro	Ala	Pro	Ala	Ala	Glu	Glu	Thr	Met		
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aac	acc	agc	cca	ggg	act	cct	gcc	cca	gct	gct	gaa	gag	780	
Asn	Thr	Ser	Pro	Gly	Thr	Pro	Ala	Pro	Ala	Ala	Glu	Glu		
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aca	atg	acc	acc	agc	ccg	ggg	act	cct	gcc	cca	gct	gct	819	
Thr	Met	Thr	Thr	Ser	Pro	Gly	Thr	Pro	Ala	Pro	Ala	Ala		
				200				205						
gaa	gag	aca	atg	acc	acc	agc	ccg	ggg	act	cct	gcc	cca	858	
Glu	Glu	Thr	Met	Thr	Thr	Ser	Pro	Gly	Thr	Pro	Ala	Pro		
210					215					220				
gct	gct	gaa	gag	aca	atg	acc	acc	agc	ccg	ggg	act	cct	897	
Ala	Ala	Glu	Glu	Thr	Met	Thr	Thr	Ser	Pro	Gly	Thr	Pro		
		225					230					235		
gcc	tct	tct	cat	tac	ctc	tca	tgc	acc	atc	gta	ggg	atc	936	
Ala	Ser	Ser	His	Tyr	Leu	Ser	Cys	Thr	Ile	Val	Gly	Ile		
				240				245						
ata	gtt	cta	att	gtg	ctt	ctg	att	gtg	ttt	gtt	t	970		
Ile	Val	Leu	Ile	Val	Leu	Leu	Ile	Val	Phe	Val				
	250					255			259					
gaaagacttc actgtggaag aaattccttc cttacctgaa aggttcaggt 1020														
aggcgctggc tgagggcggg gggcgctgga cactctctgc cctgcctccc 1070														

tctgctgtgt tcccacagac agaaacgcct gccctgccc caaaaaaaaa 1120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1170
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 <213> Homo sapiens

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 Arg Thr Gln Asp Gly Val Gly Asn His Thr Met Ala Arg Ile Pro
 35 40 45
 Lys Thr Leu Lys Phe Val Val Val Ile Val Ala Val Leu Leu Pro
 50 55 60
 Val Leu Ala Tyr Ser Ala Thr Thr Ala Arg Gln Glu Glu Val Pro
 65 70 75
 Gln Gln Thr Val Ala Pro Gln Gln Gln Arg His Ser Phe Lys Gly
 80 85 90
 Glu Glu Cys Pro Ala Gly Ser His Arg Ser Glu His Thr Gly Ala
 95 100 105
 Cys Asn Pro Cys Thr Glu Gly Val Asp Tyr Thr Asn Ala Ser Asn
 110 115 120
 Asn Glu Pro Ser Cys Phe Pro Cys Thr Val Cys Lys Ser Asp Gln
 125 130 135
 Lys His Lys Ser Ser Cys Thr Met Thr Arg Asp Thr Val Cys Gln
 140 145 150
 Cys Lys Glu Gly Thr Phe Arg Asn Glu Asn Ser Pro Glu Met Cys
 155 160 165
 Arg Lys Cys Ser Arg Cys Pro Ser Gly Glu Val Gln Val Ser Asn
 170 175 180
 Cys Thr Ser Trp Asp Asp Ile Gln Cys Val Glu Glu Phe Gly Ala
 185 190 195
 Asn Ala Thr Val Glu Thr Pro Ala Ala Glu Glu Thr Met Asn Thr
 200 205 210
 Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met Asn Thr
 215 220 225
 Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met Thr Thr
 230 235 240
 Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met Thr Thr
 245 250 255

Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met Thr Thr
260 265 270

Ser Pro Gly Thr Pro Ala Ser Ser His Tyr Leu Ser Cys Thr Ile
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Val Gly Ile Ile Val Leu Ile Val Leu Leu Ile Val Phe Val
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-40 -35

cgc ttc cta ccg tta ggg aac tct ggg gac aga gcg ccc 129
Arg Phe Leu Pro Leu Gly Asn Ser Gly Asp Arg Ala Pro
-30 -25

cgg ccg cct gat ggc cga ggc agg gtg cga ccc agg acc 168
Arg Pro Pro Asp Gly Arg Gly Arg Val Arg Pro Arg Thr
-20 -15 -10

cag gac ggc gtc ggg aac cat acc atg gcc cgg atc ccc 207
Gln Asp Gly Val Gly Asn His Thr Met Ala Arg Ile Pro
-5 1 5

aag acc cta aag ttc gtc gtc gtc atc gtc gcg gtc ctg 246
Lys Thr Leu Lys Phe Val Val Val Ile Val Ala Val Leu
10 15

ctg cca gtc cta gct tac tct gcc acc act gcc cgg cag 285
Leu Pro Val Leu Ala Tyr Ser Ala Thr Thr Ala Arg Gln
20 25 30

gag gaa gtt ccc cag cag aca gtg gcc cca cag caa cag 324
Glu Glu Val Pro Gln Gln Thr Val Ala Pro Gln Gln Gln
35 40

agg cac agc ttc aag ggg gag gag tgt cca gca gga tct 363
Arg His Ser Phe Lys Gly Glu Glu Cys Pro Ala Gly Ser
45 50 55

cat aga tca gaa cat act gga gcc tgt aac ccg tgc aca 402
His Arg Ser Glu His Thr Gly Ala Cys Asn Pro Cys Thr
60 65 70

gag ggt gtg gat tac acc aac gct tcc aac aat gaa cct 441
 Glu Gly Val Asp Tyr Thr Asn Ala Ser Asn Asn Glu Pro
 75 80

tct tgc ttc cca tgt aca gtt tgt aaa tca gat caa aaa 480
 Ser Cys Phe Pro Cys Thr Val Cys Lys Ser Asp Gln Lys
 85 90 95

cat aaa agt tcc tgc acc atg acc aga gac aca gtg tgt 519
 His Lys Ser Ser Cys Thr Met Thr Arg Asp Thr Val Cys
 100 105

cag tgt aaa gaa ggc acc ttc cgg aat gaa aac tcc cca 558
 Gln Cys Lys Glu Gly Thr Phe Arg Asn Glu Asn Ser Pro
 110 115 120

gag atg tgc cgg aag tgt agc agg tgc cct agt ggg gaa 597
 Glu Met Cys Arg Lys Cys Ser Arg Cys Pro Ser Gly Glu
 125 130 135

gtc caa gtc agt aat tgt acg tcc tgg gat gat atc cag 636
 Val Gln Val Ser Asn Cys Thr Ser Trp Asp Asp Ile Gln
 140 145

tgt gtt gaa gaa ttt ggt gcc aat gcc act gtg gaa acc 675
 Cys Val Glu Glu Phe Gly Ala Asn Ala Thr Val Glu Thr
 150 155 160

cca gct gct gaa gag aca atg aac acc agc ccg ggg act 714
 Pro Ala Ala Glu Glu Thr Met Asn Thr Ser Pro Gly Thr
 165 170

cct gcc cca gct gct gaa gag aca atg aac acc agc cca 753
 Pro Ala Pro Ala Ala Glu Glu Thr Met Asn Thr Ser Pro
 175 180 185

ggg act cct gcc cca gct gct gaa gag aca atg acc acc 792
 Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met Thr Thr
 190 195 200

agc ccg ggg act cct gcc cca gct gct gaa gag aca atg 831
 Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu Thr Met
 205 210

acc acc agc ccg ggg act cct gcc cca gct gct gaa gag 870
 Thr Thr Ser Pro Gly Thr Pro Ala Pro Ala Ala Glu Glu
 215 220 225

aca atg acc acc agc ccg ggg act cct gcc tct tct cat 909
 Thr Met Thr Thr Ser Pro Gly Thr Pro Ala Ser Ser His
 230 235

tac ctc tca tgc acc atc gta ggg atc ata gtt cta att 948
 Tyr Leu Ser Cys Thr Ile Val Gly Ile Ile Val Leu Ile
 240 245 250

gtg ctt ctg att gtg ttt gtt t gaaagacttc actgtggaag 990
 Val Leu Leu Ile Val Phe Val
 255 259

aaattccttc cttacctgaa aggttcaggt aggcgctggc tgagggcggg 1040
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agaaacgcct gccctgccc caaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1140

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<213> Yeast

<400> 5
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<210> 6
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<211> 49
<212> PRT
<213> Homo sapiens

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Gly Cys Arg Lys

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<213> Homo sapiens

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Cys Lys Glu

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<212> DNA
<213> Homo sapiens

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gctaaagctg aggcagcggg 70

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<213> Homo sapiens

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<223>

<220>

<221> Unsure

<222> 1367

<223> W may be adenine or thymine or uracil

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tcaacatggt gtccccggg gagtcagagc atctgctgga accggcagaa 1000
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cctttgactc ctgggagccg ctcatgagga agttgggcct catggacaat 1150
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<211> 411

<212> PRT

<213> Homo sapiens

<220>

<221> Unsure

<222> 410

<223> Xaa may be leucine or methionine

<400> 11

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Lys	Arg	His	Gly	Pro	Gly	Pro	Arg	Glu	Ala	Arg	Gly	Ala	Arg	Pro
			20					25						30

Gly	Leu	Arg	Val	Pro	Lys	Thr	Leu	Val	Leu	Val	Val	Ala	Ala	Val
			35				40							45

Leu	Leu	Leu	Val	Ser	Ala	Glu	Ser	Ala	Leu	Ile	Thr	Gln	Gln	Asp
			50						55					60

Leu	Ala	Pro	Gln	Gln	Arg	Ala	Ala	Pro	Gln	Gln	Lys	Arg	Ser	Ser
			65						70					75

Pro	Ser	Glu	Gly	Leu	Cys	Pro	Pro	Gly	His	His	Ile	Ser	Glu	Asp
			80						85					90

Gly	Arg	Asp	Cys	Ile	Ser	Cys	Lys	Tyr	Gly	Gln	Asp	Tyr	Ser	Thr
			95						100					105

His	Trp	Asn	Asp	Leu	Leu	Phe	Cys	Leu	Arg	Cys	Thr	Arg	Cys	Asp
			110						115					120

Ser	Gly	Glu	Val	Glu	Leu	Ser	Pro	Cys	Thr	Thr	Thr	Arg	Asn	Thr
			125						130					135

Val	Cys	Gln	Cys	Glu	Glu	Gly	Thr	Phe	Arg	Glu	Glu	Asp	Ser	Pro	
				140					145					150	
Glu	Met	Cys	Arg	Lys	Cys	Arg	Thr	Gly	Cys	Pro	Arg	Gly	Met	Val	
				155					160					165	
Lys	Val	Gly	Asp	Cys	Thr	Pro	Trp	Ser	Asp	Ile	Glu	Cys	Val	His	
				170					175					180	
Lys	Glu	Ser	Gly	Ile	Ile	Ile	Gly	Val	Thr	Val	Ala	Ala	Val	Val	
				185					190					195	
Leu	Ile	Val	Ala	Val	Phe	Val	Cys	Lys	Ser	Leu	Leu	Trp	Lys	Lys	
				200					205					210	
Val	Leu	Pro	Tyr	Leu	Lys	Gly	Ile	Cys	Ser	Gly	Gly	Gly	Gly	Asp	
				215					220					225	
Pro	Glu	Arg	Val	Asp	Arg	Ser	Ser	Gln	Arg	Pro	Gly	Ala	Glu	Asp	
				230					235					240	
Asn	Val	Leu	Asn	Glu	Ile	Val	Ser	Ile	Leu	Gln	Pro	Thr	Gln	Val	
				245					250					255	
Pro	Glu	Gln	Glu	Met	Glu	Val	Gln	Glu	Pro	Ala	Glu	Pro	Thr	Gly	
				260					265					270	
Val	Asn	Met	Leu	Ser	Pro	Gly	Glu	Ser	Glu	His	Leu	Leu	Glu	Pro	
				275					280					285	
Ala	Glu	Ala	Glu	Arg	Ser	Gln	Arg	Arg	Arg	Leu	Leu	Val	Pro	Ala	
				290					295					300	
Asn	Glu	Gly	Asp	Pro	Thr	Glu	Thr	Leu	Arg	Gln	Cys	Phe	Asp	Asp	
				305					310					315	
Phe	Ala	Asp	Leu	Val	Pro	Phe	Asp	Ser	Trp	Glu	Pro	Leu	Met	Arg	
				320					325					330	
Lys	Leu	Gly	Leu	Met	Asp	Asn	Glu	Ile	Lys	Val	Ala	Lys	Ala	Glu	
				335					340					345	
Ala	Ala	Gly	His	Arg	Asp	Thr	Leu	Tyr	Thr	Met	Leu	Ile	Lys	Trp	
				350					355					360	
Val	Asn	Lys	Thr	Gly	Arg	Asp	Ala	Ser	Val	His	Thr	Leu	Leu	Asp	
				365					370					375	
Ala	Leu	Glu	Thr	Leu	Gly	Glu	Arg	Leu	Ala	Lys	Gln	Lys	Ile	Glu	
				380					385					390	
Asp	His	Leu	Leu	Ser	Ser	Gly	Lys	Phe	Met	Tyr	Leu	Glu	Gly	Asn	
				395					400					405	
Ala	Asp	Ser	Ala	Xaa	Ser										
				410											

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<212> PRT

<213> Homo sapiens

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Ala	Arg	Ala	Arg	Ala	Gly	Arg	Ala	Pro	Gly	Pro	Pro	Pro	Ala	Arg	
				20					25					30	
Glu	Ala	Ser	Pro	Arg	Leu	Arg	Val	His	Lys	Thr	Phe	Lys	Phe	Val	
				35					40					45	
Val	Val	Gly	Val	Leu	Leu	Gln	Val	Val	Pro	Ser	Ser	Ala	Ala	Thr	
				50					55					60	
Ile	Lys	Leu	His	Asp	Gln	Ser	Ile	Gly	Thr	Gln	Gln	Trp	Glu	His	
				65					70					75	
Ser	Pro	Leu	Gly	Glu	Leu	Cys	Pro	Pro	Gly	Ser	His	Arg	Ser	Glu	
				80					85					90	
Arg	Pro	Gly	Ala	Cys	Asn	Arg	Cys	Thr	Glu	Gly	Val	Gly	Tyr	Thr	
				95					100					105	
Asn	Ala	Ser	Asn	Asn	Leu	Phe	Ala	Cys	Leu	Pro	Cys	Thr	Ala	Cys	
				110					115					120	
Lys	Ser	Asp	Glu	Glu	Glu	Arg	Ser	Pro	Cys	Thr	Thr	Thr	Arg	Asn	
				125					130					135	
Thr	Ala	Cys	Gln	Cys	Lys	Pro	Gly	Thr	Phe	Arg	Asn	Asp	Asn	Ser	
				140					145					150	
Ala	Glu	Met	Cys	Arg	Lys	Cys	Ser	Thr	Gly	Cys	Pro	Arg	Gly	Met	
				155					160					165	
Val	Lys	Val	Lys	Asp	Cys	Thr	Pro	Trp	Ser	Asp	Ile	Glu	Cys	Val	
				170					175					180	
His	Lys	Glu	Ser	Gly	Asn	Gly	His	Asn	Ile	Trp	Val	Ile	Leu	Val	
				185					190					195	
Val	Thr	Leu	Val	Val	Pro	Leu	Leu	Leu	Val	Ala	Val	Leu	Ile	Val	
				200					205					210	
Cys	Cys	Cys	Ile	Gly	Ser	Gly	Cys	Gly	Gly	Asp	Pro	Lys	Cys	Met	
				215					220					225	
Asp	Arg	Val	Cys	Phe	Trp	Arg	Leu	Gly	Leu	Leu	Arg	Gly	Pro	Gly	
				230					235					240	

Ala	Glu	Asp	Asn	Ala	His	Asn	Glu	Ile	Leu	Ser	Asn	Ala	Asp	Ser
				245					250					255
Leu	Ser	Thr	Phe	Val	Ser	Glu	Gln	Gln	Met	Glu	Ser	Gln	Glu	Pro
				260					265					270
Ala	Asp	Leu	Thr	Gly	Val	Thr	Val	Gln	Ser	Pro	Gly	Glu	Ala	Gln
				275					280					285
Cys	Leu	Leu	Gly	Pro	Ala	Glu	Ala	Glu	Gly	Ser	Gln	Arg	Arg	Arg
				290					295					300
Leu	Leu	Val	Pro	Ala	Asn	Gly	Ala	Asp	Pro	Thr	Glu	Thr	Leu	Met
				305					310					315
Leu	Phe	Phe	Asp	Lys	Phe	Ala	Asn	Ile	Val	Pro	Phe	Asp	Ser	Trp
				320					325					330
Asp	Gln	Leu	Met	Arg	Gln	Leu	Asp	Leu	Thr	Lys	Asn	Glu	Ile	Asp
				335					340					345
Val	Val	Arg	Ala	Gly	Thr	Ala	Gly	Pro	Gly	Asp	Ala	Leu	Tyr	Ala
				350					355					360
Met	Leu	Met	Lys	Trp	Val	Asn	Lys	Thr	Gly	Arg	Asn	Ala	Ser	Ile
				365					370					375
His	Thr	Leu	Leu	Asp	Ala	Leu	Glu	Arg	Met	Glu	Glu	Arg	His	Ala
				380					385					390
Lys	Glu	Lys	Ile	Gln	Asp	Leu	Leu	Val	Asp	Ser	Gly	Lys	Phe	Ile
				395					400					405
Tyr	Leu	Glu	Asp	Gly	Thr	Gly	Ser	Ala	Val	Ser	Leu	Glu		
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 Thr Leu Gly Leu Arg Glu Ala Glu Ile Glu Ala Val Glu Val Glu
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 Ile Gly Arg Phe Arg Asp Gln Gln Tyr Glu Met Leu Lys Arg Trp
 35 40 45
 Arg Gln Gln Gln Pro Ala Gly Leu Gly Ala Val Tyr Ala Ala Leu
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 Glu Arg Met Gly Leu Asp Gly Cys Val Glu Asp Leu Arg Ser
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Arg	Leu	Gly	Leu	Ser	Asp	His	Glu	Ile	Asp	Arg	Leu	Glu	Leu	Gln
				20					25					30
Asn	Gly	Arg	Cys	Leu	Arg	Glu	Ala	Gln	Tyr	Ser	Met	Leu	Ala	Thr
				35					40					45
Trp	Arg	Arg	Arg	Thr	Pro	Arg	Arg	Glu	Ala	Thr	Leu	Glu	Leu	Leu
				50					55					60
Gly	Arg	Val	Leu	Arg	Asp	Met	Asp	Leu	Leu	Gly	Cys	Leu	Glu	Asp
				65					70					75
Ile	Glu	Glu												

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Ile	Ala	Gly	Val	His	Thr	Leu	Ser	Gln	Val	Lys	Gly	Phe	Val	Arg
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Lys	Asn	Gly	Val	Asn	Glu	Ala	Lys	Ile	Asp	Glu	Ile	Lys	Asn	Asp
				20					25					30
Asn	Val	Gln	Asp	Thr	Ala	Glu	Gln	Lys	Val	Gln	Leu	Leu	Arg	Asn
				35					40					45
Trp	His	Gln	Leu	His	Gly	Lys	Lys	Glu	Ala	Tyr	Asp	Thr	Leu	Ile
				50					55					60
Lys	Asp	Leu	Lys	Lys	Ala	Asn	Leu	Cys	Thr	Leu	Ala	Glu	Lys	Ile
				65					70					75
Gln	Thr													

61
cancel.